## SEQUENCE LISTING

# (1) GENERAL INFORMATION:

- (i) APPLICANT: R. Bruce Wallace
- (ii) TITLE OF INVENTION: Ligation Amplification of Nucleic Acid Sequences
- (iii) NUMBER OF SEQUENCES: Fifteen
  - (iv) CORRESPONDENCE ADDRESS:
    - (A) ADDRESSEE: City of Hope
    - STREET: 1500 East Duarte Road (B)
    - CITY: Duarte (C)
    - STATE: California (D)
    - COUNTRY: United States of America (E)
    - (F) ZIP: 91010-0269
    - (v) COMPUTER READABLE FORM:
      - 3M Double Density 5 1/4" diskette (A) MEDIUM TYPE:
      - (B) COMPUTER: Wang PC
      - OPERATING SYSTEM: MS-DOS (R) Version 3.30 (C)
      - SOFTWARE: Microsoft (R) (D)
  - (vi) CURRENT APPLICATION DATA:
    - APPLICATION NUMBER: (A)
    - (B) FILING DATE:
    - CLASSIFICATION: Unknown (C)
- (vii) PRIOR APPLICATION DATA: None
  - (A) APPLICATION NUMBER: 07/870,221
  - (B) FILING DATE: 20 April 1992
  - (C) CLASSIFICATION: Unknown
  - (D) APPLICATION NUMBER: 07/178,377
  - (B) FILING DATE: 06 April 1988
  - CLASSIFICATION: (C) Unknown
- (viii) ATTORNEY/AGENT INFORMATION:
  - Irons, Edward S. (A) NAME:
  - REGISTRATION NUMBER: (B) 16,541

02/01/93 07/996, 771 See par. 2

(C) REFERENCE/ACKET NUMBER: None (ix) TELECOMMUNICATION INFORMATION: TELEPHONE: (202) 785-6938 (A) (B) TELEFAX: (202) 785-5351 (C) TELEX: 440087 LM WSH (2) INFORMATION FOR SEQ ID NO: 1: (i) SEQUENCE CHARACTERISTICS: LENGTH: (A) 14 prucieic acid (B) TYPE: Oligonucleotide (C) STRANDEDNESS: Single Stranded (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: Not Applicable (iii) HYPOTHETICAL: Not Applicable (iv) ANTI-SENSE: Not Applicable (v) FRAGMENT TYPE: Not Applicable (vi) ORIGINAL SOURCE: Synthetically Prepared (vii) IMMEDIATE SOURCE: Synthetically Prepared (viii) POSITION IN GENOME: None (ix) FEATURE: None (x) PUBLICATION INFORMATION: None (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1: CGGCAGACTT CTCC 14 (2) INFORMATION FOR SEQ ID NO: 2: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: TYPE: Oligonucleotide > NUCleic acid (B) (C) STRANDEDNESS: Single Stranded (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: Not Applicable (iii) HYPOTHETICAL: Not Applicable (iv) ANTI-SENSE: Not Applicable (v) FRAGMENT TYPE: Not Applicable

(vii) IMMEDIATE SOURCE Synthetically Prepared (viii) POSITION IN GENOME: None (ix) FEATURE: None (x) PUBLICATION INFORMATION: None (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2: **TCAGGAGT** (2) INFORMATION FOR SEQ ID NO:3: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 6 same as above TYPE: Qligonucleotide (B) (C) STRANDEDNESS: Single Stranded (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: Not Applicable (iii) HYPOTHETICAL: Not Applicable (iv) ANTI-SENSE: Not Applicable (v) FRAGMENT TYPE: Not Applicable (vi) ORIGINAL SOURCE: Synthetically Prepared (vii) IMMEDIATE SOURCE: Synthetically Prepared (viii) POSITION IN GENOME: None (ix) FEATURE: None (x) PUBLICATION INFORMATION: (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3: **TCAGGA** 6 (2) INFORMATION FOR SEQ ID NO:4: (i) SEQUENCE CHARACTERISTICS:

LENGTH: 8

TYPE: Oligonucleotide

TOPOLOGY: Linear

(ii) MOLECULE TYPE: Not Applicable

(iii) HYPOTHETICAL: Not Applicable

(iv) ANTI-SENSE: Not Applicable

STRANDEDNESS: Single Stranded

(A)

(B)

(C)

(D)

- (vi) ORIGINAL SOURCE Synthetically Prepared
- (vii) IMMEDIATE SOURCE: Synthetically Prepared
- (viii) POSITION IN GENOME: None
  - (ix) FEATURE: None
  - (x) PUBLICATION INFORMATION: None
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

ACAGGAGT

8

6

- (2) INFORMATION FOR SEQ ID NO:5:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 6
    - (B) TYPE: Qligonucleotide
    - (C) STRANDEDNESS: Single Stranded
    - (D) TOPOLOGY: Linear
  - (ii) MOLECULE TYPE: Not Applicable
  - (iii) HYPOTHETICAL: Not Applicable
    - (iv) ANTI-SENSE: Not Applicable
      - (v) FRAGMENT TYPE: Not Applicable
    - (vi) ORIGINAL SOURCE: Synthetically Prepared
  - (vii) IMMEDIATE SOURCE: Synthetically Prepared
  - (viii) POSITION IN GENOME: None
    - (ix) FEATURE: None
    - (x) PUBLICATION INFORMATION: None
    - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

ACAGGA

- (2) INFORMATION FOR SEQ ID NO:6:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 14
    - (B) TYPE: Oligonucleotide
    - (C) STRANDEDNESS: Single Stranded
    - (D) TOPOLOGY: Linear
  - (ii) MOLECULE TYPE: Not Applicable

- (iv) ANTI-SENSE: No Applicable
  - (v) FRAGMENT TYPE: Not Applicable
- (vi) ORIGINAL SOURCE: Synthetically Prepared
- (vii) IMMEDIATE SOURCE: Synthetically Prepared
- (viii) POSITION IN GENOME: None
  - (ix) FEATURE: None
  - (x) PUBLICATION INFORMATION: None
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

CACCTGACTC CTGA 14

- (2) INFORMATION FOR SEQ ID NO:7:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 14
    - (B) TYPE: Oligonucleotide
    - (C) STRANDEDNESS: Single Stranded
    - (D) TOPOLOGY: Linear
  - (ii) MOLECULE TYPE: Not Applicable
  - (iii) HYPOTHETICAL: Not Applicable
    - (iv) ANTI-SENSE: Not Applicable
      - (v) FRAGMENT TYPE: Not Applicable
    - (vi) ORIGINAL SOURCE: Synthetically Prepared
  - (vii) IMMEDIATE SOURCE: Synthetically Prepared
  - (viii) POSITION IN GENOME: None
    - (ix) FEATURE: None
    - (x) PUBLICATION INFORMATION: None
    - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

      CACCTGACTC CTGT 14
- (2) INFORMATION FOR SEQ ID NO:8:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 8
    - (B) TYPE: Oligonucleotide
    - (C) STRANDEDNESS: Single Stranded

- (ii) MOLECULE TYPE: Not Applicable
- (iii) HYPOTHETICAL: Not Applicable
  - (iv) ANTI-SENSE: Not Applicable
    - (v) FRAGMENT TYPE: Not Applicable
- (vi) ORIGINAL SOURCE: Synthetically Prepared
- (vii) IMMEDIATE SOURCE: Synthetically Prepared
- (viii) POSITION IN GENOME: None
  - (ix) FEATURE: None
  - (x) PUBLICATION INFORMATION: None
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
    GGAGAAGT
    8

### (2) INFORMATION FOR SEQ ID NO:9:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 6
  - (B) TYPE: Qligonucleotide
  - (C) STRANDEDNESS: Single Stranded
  - (D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE: Not Applicable
- (iii) HYPOTHETICAL: Not Applicable
  - (iv) ANTI-SENSE: Not Applicable
    - (v) FRAGMENT TYPE: Not Applicable
  - (vi) ORIGINAL SOURCE: Synthetically Prepared
- (vii) IMMEDIATE SOURCE: Synthetically Prepared
- (viii) POSITION IN GENOME: None
  - (ix) FEATURE: None
  - (x) PUBLICATION INFORMATION: None
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
    GGAGAA 6

# (2) INFORMATION FOR SEQ ID NO:10:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 19

- (C) STRANDEDNIES: Single Stranded
- (D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE: Not Applicable
- (iii) HYPOTHETICAL: Not Applicable
  - (iv) ANTI-SENSE: Not Applicable
    - (v) FRAGMENT TYPE: Not Applicable
  - (vi) ORIGINAL SOURCE: Synthetically Prepared
- (vii) IMMEDIATE SOURCE: Synthetically Prepared
- (viii) POSITION IN GENOME: None
  - (ix) FEATURE: None
  - (x) PUBLICATION INFORMATION: None
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:

CTCCTGAGGA GAAGTCTGC

19

# (2) INFORMATION FOR SEQ ID NO:11:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 19

(B) TYPE: Oligonucleotide

(C) STRANDEDNESS: Single Stranded

(D) TOPOLOGY: Linear

- (ii) MOLECULE TYPE: Not Applicable
- (iii) HYPOTHETICAL: Not Applicable
  - (iv) ANTI-SENSE: Not Applicable
  - (v) FRAGMENT TYPE: Not Applicable
  - (vi) ORIGINAL SOURCE: Synthetically Prepared
- (vii) IMMEDIATE SOURCE: Synthetically Prepared
- (viii) POSITION IN GENOME: None
  - (ix) FEATURE: None
  - (x) PUBLICATION INFORMATION: None
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:

CTCCTGTGGA GAAGTCTGC 19

(2) INFORMATION FOR SEQ ID NO:12:

- (A) LENGTH:
- (B) TYPE: Oligonucleotide
- (C) STRANDEDNESS: Single Stranded
- (D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE: Not Applicable
- (iii) HYPOTHETICAL: Not Applicable
  - (iv) ANTI-SENSE: Not Applicable
    - (v) FRAGMENT TYPE: Not Applicable
  - (vi) ORIGINAL SOURCE: Synthetically Prepared
- (vii) IMMEDIATE SOURCE: Synthetically Prepared
- (viii) POSITION IN GENOME: None
  - (ix) FEATURE: None
  - (x) PUBLICATION INFORMATION: None
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12: CGGCAGACTT CTCCTCAGGA GTC 23

## (2) INFORMATION FOR SEQ ID NO:13:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 23
  - (B) TYPE: Oligonucleotide
  - (C) STRANDEDNESS: Single Stranded
  - (D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE: Not Applicable
- (iii) HYPOTHETICAL: Not Applicable
  - (iv) ANTI-SENSE: Not Applicable
  - (v) FRAGMENT TYPE: Not Applicable
  - (vi) ORIGINAL SOURCE: Synthetically Prepared
- (vii) IMMEDIATE SOURCE: Synthetically Prepared
- (viii) POSITION IN GENOME: None
  - (ix) FEATURE: None
  - (x) PUBLICATION INFORMATION: None
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:
    CGGCAGACTT CTCCACAGGA GTC 23

# (2) INFORMATION FOR SEQ II 0:14:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 14
  - (B) TYPE: Oligonucleotide
  - (C) STRANDEDNESS: Single Stranded
  - (D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE: Not Applicable
- (iii) HYPOTHETICAL: Not Applicable
  - (iv) ANTI-SENSE: Not Applicable
  - (v) FRAGMENT TYPE: Not Applicable
  - (vi) ORIGINAL SOURCE: Synthetically Prepared
- (vii) IMMEDIATE SOURCE: Synthetically Prepared
- (viii) POSITION IN GENOME: None
  - (ix) FEATURE: None
  - (x) PUBLICATION INFORMATION: None
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:

CCTCTTCAGA CGGC 14

# (2) INFORMATION FOR SEQ ID NO:15:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 8
  - (B) TYPE: Oligonucleotide
  - (C) STRANDEDNESS: Single Stranded
  - (D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE: Not Applicable
- (iii) HYPOTHETICAL: Not Applicable
  - (iv) ANTI-SENSE: Not Applicable
    - (v) FRAGMENT TYPE: Not Applicable
  - (vi) ORIGINAL SOURCE: Synthetically Prepared
- (vii) IMMEDIATE SOURCE: Synthetically Prepared
- (viii) POSITION IN GENOME: None
  - (ix) FEATURE: None
  - (x) PUBLICATION INFORMATION: None